

SCOTT LIEBERMAN Via Associated Press

DISASTER ON HIGH: Fiery debris from Columbia streaks across the sky over Tyler, Texas. An amateur photographer in his backyard in Tyler took this shot of the space shuttle disintegrating.

‘Columbia Is Lost’



THE CREW: From left, Air Force Col. Rick D. Husband, Navy Capt. David M. Brown, Navy Cmdr. William C. McCool, Navy Cmdr. Laurel Clark, Air Force Lt. Col. Michael P. Anderson, Israeli air force Col. Ilan Ramon and Kalpana Chawla.

Joined in Spirit and Flight

By LAURA KING AND RICH CONNELL
Times Staff Writers

For two grueling years, they honed their skills and their characters with hundreds of hours of exacting training. They studied the careers of antique British explorers and, together, climbed rugged mountains in Wyoming. They were a team: Five men and two women. Their leader was Rick D. Husband, an Air Force colonel and father of two who sang solos in his church choir. His teammates included a crack Israeli fighter pilot — his country's first astronaut — and another Air Force officer who was one of only seven African Americans in the U.S. manned space program. The rest of the crew had backgrounds similarly diverse and equally rich in achievement.

Two were physicians. As a group, they shared a passion for flight and family, church and temple. By NASA's current standards, the crew of STS-107, as the mission was formally called, was relatively inexperienced. Only three — Husband, Air Force Lt. Col. Michael P. Anderson and civilian astronaut Kalpana Chawla — had flown in space before. Navy Cmdr. William C. McCool, Israeli air force Col. Ilan Ramon, Navy Cmdr. Laurel Clark and Navy Capt. David M. Brown were rookies. Anderson, who loved flying, warned the rookies to prepare themselves for the rigors of the launch, which he disliked. "It's the risk factor," he said. "There's always the unknown" — and the unforeseen. In 42 years of U.S. manned space flight, there had never before been an accident during [See Crew, Page A8]

Shuttle Burns Up Over Texas, Killing All 7 Crew Members

By SCOTT GOLD
Times Staff Writer

HOUSTON — The space shuttle Columbia, flying at 18 times the speed of sound, disintegrated in a rumbling roar and incandescent flashes of light Saturday over East Texas, killing all seven of its astronauts and scattering chunks of metal and machinery across two states, only 16 minutes before its scheduled landing at Cape Canaveral, Fla. It sounded like "rolling thunder," one witness said. Shock waves rattled homes and barns 39 miles below. Bright objects hurtled off the spacecraft, and the debris plummeted to Earth. Pieces were soaked with toxic fuel. Some were in flames and started several brush fires. Plumes of chalk-white smoke

streaked across the blue sky, visible from Texas to Mississippi. Officials warned people in East Texas and northwestern Louisiana not to touch the toxic debris. No injuries were reported on the ground. There was at least one report of human remains from the shuttle, recovered in Hemphill, Texas, near the Louisiana line. A hospital employee on his way to work told authorities he found body parts near some debris. Aboard the shuttle were six Americans and an Israeli astronaut, causing security to be tighter than usual. "There is no information at this time that this was a terrorist incident," said Gordon Johndroe, spokesman for the Homeland Security Department. FBI spokeswoman Angela Bell said her agency would have only a tangential role in investigating the tragedy — assisting in the recovery of evidence.

NASA said it did not yet know what destroyed Columbia. Ron Dittmore, shuttle program manager, said a piece of insulation from a fuel tank had struck the left wing seconds after take-off Jan. 16 — and that this wing was where problems seemed to start during its descent over Texas. The agency halted all shuttle flights until an independent investigation could pinpoint the cause of those problems. "The Columbia is lost," President Bush told the world on television. "There are no survivors." His eyes glistened as he spoke softly from the Cabinet Room at the White House. "The same Creator who names the stars also knows the names of the seven souls we mourn today. The crew of the shuttle Columbia did [See Columbia, Page A7]

Aging Fleet Was Showing Its Years

Much technology dates to the Apollo era, and many reviews raised safety issues. Columbia, the oldest craft, was nearly mothballed.

By USHA LEE MCFARLING
Times Staff Writer

Leaks in fuel lines. Cracked door hinges. Pitted and stained exteriors. Even holes drilled by woodpeckers. As America's space shuttle fleet has aged, its obvious scars and glitches have accumulated. So have deep fears about its safety. The aging fleet — 22 years old — has now been flying for twice as long as its builders first envisioned. Some parts were made so long ago that they are no longer available. Shuttle engineers have had to turn to Internet auction site EBay for desperately needed hardware and electronics. Columbia, the oldest and heaviest of the four existing shuttle orbiters, was nearly mothballed at least once, as NASA tried to limit the swelling cost of the shuttle program budget. Even as the fleet has aged, NASA has had to grapple with a series of budget cuts and layoffs

that have severely compromised the space agency's ability to maintain the fleet safely, say experts who in recent years have expressed increasingly urgent concern about astronaut safety. The shuttle maintenance staff shrank from 3,000 to 1,800 workers from 1995 to 1999, according to a Rand Corp. analysis. "In all of the years of my involvement, I have never been as concerned for space shuttle safety as I am right now," Richard D. Blomberg, a 15-year veteran of NASA's Aerospace Safety Advisory Panel said last [See Fleet, Page A4]

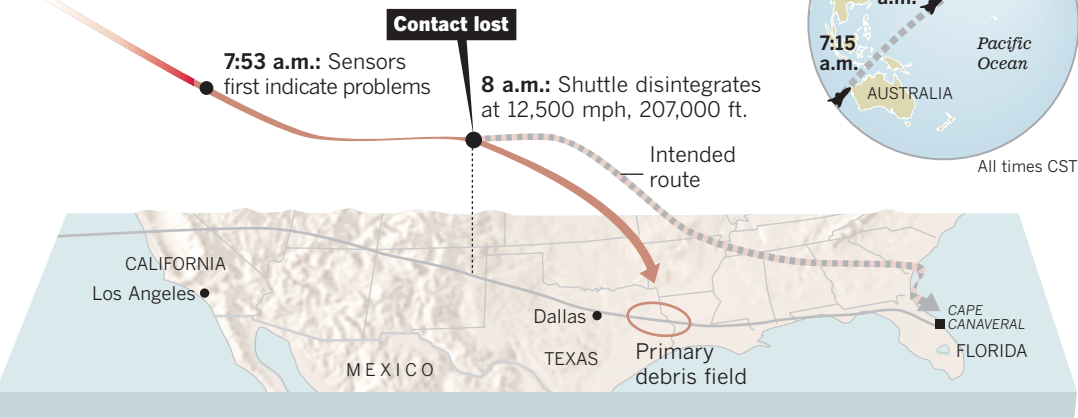
‘An Awfully Tough Investigation’ Lies Ahead

By RICARDO ALONSO-ZALDIVAR, RALPH VARTABEDIAN AND AARON ZITNER
Times Staff Writers

WASHINGTON — Moments before Columbia broke apart over Texas, it had begun the most stressing part of its reentry to Earth's atmosphere, taking a banked turn at 12,500 mph and heating up to 3,000 degrees from atmospheric friction. It is likely that the cause of the accident is closely related to

The shuttle's final minutes

The space shuttle Columbia was just reentering the Earth's atmosphere and experiencing maximum heat when it broke apart over Texas.



Sources: NASA, Associated Press - Researched by Times graphics reporters JOEL GREENBERG, BRADY MACDONALD
LORENA INIGUEZ Los Angeles Times

COMPLETE COVERAGE OF THE DISASTER

NASA Troubled agency will find itself on trial. **A3**
Construction Space station's future is cast into doubt. **A3**
Israel Astronaut's homeland draws together in grief. **A10**
Politics Focus on accident may strengthen Bush's hand. **A13**
Americans Nation quietly absorbs its latest tragedy. **A14**
Security Officials quickly put terrorism fears to rest. **A16**

Symbols of Loss Strewn Across 500 Square Miles

By LIANNE HART AND KEN ELLINGWOOD
Times Staff Writers

NACOGDOCHES, Texas — The terrible rain of burned metal fell over horse pastures and frontyards, onto bank parking lots and sidewalks of small towns across East Texas and parts of Louisiana. Ordinary folks expecting an ordinary Saturday instead found themselves navigating a landscape specked with jagged emblems of loss from the disinte-

grated space shuttle. Katrina Self broke down after tripping across what appeared to be an electrical box lying beneath an oak in Pioneer Park. The piece of metal, said Self, a 25-year-old student, made immediate the deaths of the seven Columbia astronauts. "They probably touched that," she said, her eyes filling with tears. "Seeing this in person, you know that they were real people. Seven people. It took me back to when I was a child [See Debris, Page A6]

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WORLD
Colombia Rebels Free 2 Journalists
Reporter Ruth Morris, left, and photographer Scott Dalton, Times freelancers who had been kidnapped by leftist rebels in Colombia, ride off in a Red Cross van after their release. **A20**

NATION
Cool Response to Bush Tax Plan
Lawmakers in both parties say the \$674-billion proposal to cut taxes and boost the economy is in trouble. **A30**

CALENDAR
Director's Past Plays On
Should a 1977 statutory-rape case damage the Oscar prospects of Roman Polanski's Holocaust drama "The Pianist"? **E1**

Weather: Morning fog, low clouds and possible drizzle, becoming mostly sunny this afternoon. L.A. Downtown: 71/48. **B18**

